

Notice of Allowability

Application No.

10/617,827

Applicant(s)

OSADA ET AL.

Examiner

Marc S. Zimmer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/21/05.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Response to Arguments

It is now Applicant's position that the Examiner's combination is improper because, whereas Shiobara teaches the addition of brominated epoxy resin and antimony oxide to the essential elements taught by the broader disclosure, these elements are absent from Maeda's compositions. In the connection, Applicants make the following assertion:

"Given the fundamental dissimilarities between the inventions of Maeda and Shiobara with respect to their incorporation of various significant components or chemicals such as halogen compounds, antimony compounds, and brominated epoxy resins, it would not have been obvious to one having ordinary skill in the art that the antimony- and halogen-free composition taught by Maeda could be improved with respect to crack resistance by adding a siloxane (copolymer to the brominated epoxy resins of Shiobara". The Examiner's statement of the rejection provides no rationale for ignoring the fundamental differences between the compositions of the two references. Accordingly, no motivation for combining Maeda with Shiobara has been established."

Section 2143 of MPEP outlines the three basic requirements of a holding of prima facie obviousness as follows:

- I. there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings,
- II. there must be a reasonable expectation of success, and
- III. the prior art reference (or references when combined) must teach or suggest all the claim limitations.

First of all, that the prior art references together teach all of the limitations of the claimed invention is not in dispute. Furthermore, the Examiner has presented a clear motivation to combine. Hence, the only issue left to address is whether or not there would have been a reasonable expectation of success.

It is noted that the compositions to Maeda and Shiobara are largely the same, the only notable difference being that Shiobara contemplates adding minor quantities of a brominated epoxy resin and antimony oxide. However, there is no indication that the lack of crack resistance that represents Shiobara's reason for adding the epoxy-silicone copolymer is ascribed to the presence of these materials and, in fact, the brittle nature of cured aromatic epoxy compositions is well-documented. Because the lack of crack resistance observed in these systems is clearly not attributed to the presence of the minor quantities of a brominated epoxy resin and antimony oxide, it would be surmised by one of ordinary skill that Maeda's invention might also suffer from low crack resistance. Given that the inventions are otherwise quite similar, it is absolutely expected that composition of *Maeda* would similarly benefit from the addition of an epoxy-silicone copolymer.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

To summarize, the Examiner's holding of *prima facie* obviousness was proper and, hence, Applicant's position does represent a grounds for withdrawal of the prior art rejection.

Allowable Subject Matter

On the other hand, the Examiner has reconsidered Applicant's earlier declaration and the remarks made therewith and concluded that that the table does illustrate an unexpected result that would justify a retraction of the prior art rejection.

First of all, Applicant is indeed correct that they are not required to compare their invention with a previously unknown composition. While it is true that any well-constructed comparison should include an evaluation of the instant invention against the closest prior art, the closest prior art for the purposes of such a comparison is not that which is suggested by a combination of the teachings of two references. Indeed, to expect Applicant to compare their invention with that suggested by the combined teachings of two references is tantamount to requiring them to compare the instant invention to itself. The Examiner now believes that the comparison offered by Applicant does actually represent a comparison against the closest prior art.

Ordinarily, an illustration of unexpected results would entail showing that the claimed invention was superior with respect to a *single property* when compared to that property in the closest prior art. (There can, of course, be no previous suggestion that the improvements in the claimed composition over that of the closest prior art may be attributed to the difference(s) in their makeup.). Although the results reported in Table 1 do not point to any one property for which the instant invention is superior over other related inventions of the prior art- there was at least one or more compositions that gave a favorable comparison with the instant invention for each of the six properties summarized. However it is notable that measurements reported for the presently

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claimed composition were at least as good as those of the prior art compositions for every property summarized by the declaration and, in every case, the instant invention was improved over those of the prior art with respect to at least one property. In the Examiner's estimation, it would not necessarily have been expected that the properties of the instant invention would have been at least as good as those of the closest prior art over an entire array of properties while showing improvements over the same concerning at least one other property. For this reason, a withdrawal of the rejection over *Maeda* in view of *Shiobara* seems merited.

Kiuchi et al., WO 01/42360 discloses a curable composition composition to which is added a silicone compound and one or more metal hydroxides selected from a list that includes zinc molybdate. However, a silicone of the type presently contemplated is not mentioned and Applicant's declaration would overcome any rejection under 35 U.S.C. 103 in view of this reference.

As an aside, the Examiner had considered the possibility that the superiority of the instant invention over the comparative examples (save for moisture resistance which is more a reflection of the hydrophilic character of the polysiloxane additive) might be attributed to the expected better compatibility between the silicone featured in the instant invention and an epoxy resin. Ultimately, the Examiner could not make a case that the enhanced compatibility would unquestionably explain the overall superiority of the instant invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 13, 2005

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